REMARKS

Claims 1-44 are pending. Claims 1-44 were rejected. Independent claims 1, 11, 19, 20, 28, and 40 were rejected under 35 U.S.C. 103(a) as being unpatentable over Jindal (6092,178) in view of Mulligan (6,212,190).

Jindal describes a trigger "for taking action in response to a client request received at a DNS server... client requests for an application (e.g., an application program or replicated service) are load-balanced among the multiple instances of the application operating on multiple servers." "Based on the collected information, one or more preferred servers are identified based on one or more load balancing policies." (Summary)

However, as noted by the Examiner, Jindal fails to explicitly teach "providing multiple response fragments, wherein the multiple response fragments are obtained by dividing the response datagram into multiple fragments" as recited in the claims. The response datagram is divided into multiple fragments even though "the network is configured to allow transmission of the response datagram onto the network without dividing the response datagram into smaller fragments" as also recited in the claims.

Mulligan describes determining "a maximum transmission unit (MTU) capable of being transmitted over a predetermined route. Next, the size of each packet to be transmitted over the network is compared with the MTU size. If the comparison indicates a packet is larger than the determined MTU, the packet is processed further before it is transmitted over the route. The additional processing initially divides the total number of transmission units contained within the packet by the MTU value." (Summary)

Consequently, Mulligan only describes dividing the total number of transmission units by the MTU value if the size of each packet "is larger than the determined MTU." (Summary) The MTU is the maximum size "capable of being transmitted over a predetermined route." (Abstract).

By contrast, independent claims 1, 20, 28, and 40 of the present application explicitly recite "dividing the response datagram into multiple fragments" even when "the network is configured to allow transmission of the response datagram onto the network without dividing the

response datagram into smaller fragments." Claim 11 explicitly recites "dividing the response datagram having a size smaller than the maximum transfer unit into multiple fragments." Neither Mulligan nor Jindal teach or suggest dividing a response datagram when the network allows transmission. Similarly, neither Mulligan nor Jindal teach or suggest dividing a response datagram when the datagram has a size smaller than the maximum transfer unit. Mulligan states that a datagram is divided only when the size "is larger than the determined MTU" (Column 4, lines 19-40). Mulligan explicitly teaches away from the recitations of the independent claims.

Dividing a datagram when the size is not larger than the MTU was conventionally deemed to be inefficient and counterproductive. Splitting a datagram into multiple datagrams increases overhead by requiring additional processing and additional headers in order to transport the same amount of data. In some cases, splitting a datagram would be required based on network MTU settings. However, the techniques of the present invention recognize benefits to seemingly inefficient splitting of datagrams even when the network does not require datagram splitting. According to various embodiments, "content servers connected to the network node associated with the client 101 through network lines with high drop rates will more likely be unsuccessful in transmitting all of the fragments of a reply message to the network node associated with the client 101. Content servers connected through network lines that allow all of the fragments to be successfully transmitted will be selected based on response time for the receipt of all of the fragments. The content servers are able to provide network characteristics such as drop rate and round trip time to the network node associated with the client 101" (Page 13, lines 15-21).

Independent claim 19 explicitly recites providing a response datagram by "providing multiple response fragments, wherein three or more response fragments have different lengths." Neither Jindal nor Mulligan teach or suggest this recitation. If a datagram is divided based on MTU requirements recited in Jindal or Mulligan, all fragments except one will have the length of the MTU. Consequently, one or more fragments will have the length of the MTU and "three or more response fragments" will not have different lengths as explicitly recited in independent claim 19.

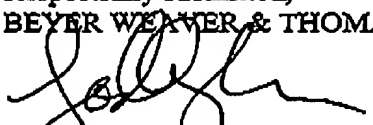
Dependent claim 23 further recites "wherein reception of all of the fragments by the network node provides drop rate information." According to various embodiments, the techniques of the present invention recognize that by fragmenting a response, drop rate

information can be provided. For example, "content servers connected to the network node associated with the client 101 through network lines with high drop rates will more likely be unsuccessful in transmitting all of the fragments of a reply message to the network node associated with the client 101. Content servers connected through network lines that allow all of the fragments to be successfully transmitted will be selected based on response time for the receipt of all of the fragments" (page 13, lines 14-19). Neither Jindal nor Mulligan teach or suggest "wherein reception of all of the fragments by the network node provide drop rate information."

In light of the above remarks relating to independent claims 1, 11, 19, 20, 28, and 40 and dependent claim 23, the remaining dependent claims are believed allowable for at least the reasons noted above.

Applicants believe that all pending claims are allowable and respectfully request a Notice of Allowance for this application from the Examiner. Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at the telephone number set out below.

Respectfully submitted,
BEYER WEAVER & THOMAS, LLP



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